

AMENDMENT

In the Claims:

Please cancel Claims 63-74, 83-93, 102-106, and 118-132 without prejudice, as being directed to non-elected groups. Amend the remaining claims as follows.

1. (Amended) A method of obtaining a selectable transgenic stem cell of a vertebrate, comprising:

administering to a gonad of a male vertebrate a transfection mixture comprising at least one transfecting agent and at least one polynucleotide comprising a transcriptional unit of a stem cell-specific promoter, except a protamine-1 promoter, operatively linked to a DNA encoding a fluorescent or light-emitting protein, under conditions effective to reach a germ cell or germ cell precursor of the male vertebrate; [and]

causing said polynucleotide to be taken up by, and released into, said germ cell or precursor cell; and

incorporating said polynucleotide into the genome of said germ cell or precursor cell, whereby a selectable transgenic stem cell is obtained expressing said fluorescent or light-emitting protein, by which said stem cell can be isolated or selected from a non-stem cell.

75. (Amended) A selectable transgenic stem cell obtained by [the method of Claim 63]:

obtaining a maturing male germ cell from a vertebrate;

transfecting said male germ cell in vitro with at least one polynucleotide comprising a transcriptional unit of a stem cell-specific promoter operatively linked to a DNA encoding a fluorescent or light-emitting protein, in the presence of a gene delivery

mixture comprising at least one transfecting agent, at about or below the vertebrate's body temperature and for a transfection-effective period of time;

causing said polynucleotide to be taken up by, and released into said germ cell; and

fertilizing an ovum with said germ cell such that a transgenic progeny expressing said fluorescent or light-emitting protein in at least one of its stem cells is obtained, said stem cell(s) being selectable from non-stem cells by detecting light emissions from said stem cell(s).

94. (Amended) A selectable transgenic stem cell obtained by [the method of Claim 83]:

obtaining a maturing male germ cell from a vertebrate;

transfecting said male germ cell in vitro with at least one polynucleotide comprising a transcriptional unit of a cyclin A1 promoter operatively linked to a DNA encoding a fluorescent or light-emitting protein, in the presence of a gene delivery mixture comprising at least one transfecting agent, at about or below the vertebrate's body temperature and for a transfection-effective period of time;

allowing said polynucleotide to be taken up by, and released into said germ cell; and

fertilizing an ovum with said germ cell such that a transgenic progeny expressing said fluorescent or light-emitting protein in at least one of its stem cells is obtained, said stem cell(s) being selectable from non-stem cells by detecting light emissions from said stem cell(s).

107. (Amended) A transgenic vertebrate cell containing [the nucleic acid construct of Claim 102] a nucleic acid construct, said nucleic acid construct comprising a cyclin A1 promoter having nucleotide sequence (SEQ. ID. NO.:2), or an